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Policy-making in a nuclear program, by Otto Keck (Lexington)

Would the Central Electricity Generating Board stump up at least £20 million per year to support the fast breeder development programme in Britain? And if not, should the programme be abandoned? The question is by no means academic.

In the Federal Republic of Germany a battle has been raging for some months, about the financing of the Federal German prototype fast breeder reactor, the SNR-300 at Kalkar. The Kalkar reactor is already several years behind schedule, and its cost has quadrupled compared with the original estimates. To date, however, almost all the funds for the project have been provided by the Bonn government, with only token contributions from the West German electrical utilities, on whose behalf the reactor is - nominally at any rate - being built.

By the beginning of 1982, the Bonn government was threatening to abandon Kalkar unless the utilities were prepared to put up a larger fraction of its total cost, now well over DM5 thousand million. The utilities have now begun to dig, reluctantly, into their pockets for up to 20 per cent of the project's costs; but the rest will still be borne by the federal government - that is, by West German taxpayers.

Is this the right way to approach technological innovation? The question is put incisively by Otto Keck, in his exhaustive analysis. Keck is now in the Department of Social Studies of Science at the University of Ulm. He has also worked at Harvard and the University of Sussex, where he was awarded his doctor's degree for an earlier version of the study.

It is an absorbing and thought-provoking analysis. Even among the community of British nuclear buffs, the German nuclear experience is unfamiliar territory; Keck leads the reader through it like the proverbial trusty native guide, calm and sure-footed, hacking his way through the jungle of organisations, projects and personalities, missing no important trail signs.

Keck describes the history of the Federal German nuclear programme; the establishment of the fast breeder programme and how it was justified; the hiccup of the steam-cooled breeder, aborted in 1969; and the convolutions of the SNR-300 project until the late 1970s. His comments throughout are apposite without being doctrinaire. He concludes that "provided that the safety and proliferation risks of FBRS can be reduced to acceptable levels, a decision strategy that makes the construction of future commercial-size demonstration plants contingent on the willingness of utilities and manufacturing industries to finance them from their own funds seems to make proper accounting of the social benefits claimed for this technology ... if economic prospects are less bright, and this what our analysis suggests, there are serious doubts that government subsidies for a series of commercial FBRs would be a better investment than exploratory R&D on technical alternatives".

The breeder programme is currently costing British tax payers over £70 million per year. Shouldn't the CEGB be picking up a substantial fraction of this tab? And if it doesn't want to, why should the rest of us? How about it, Mrs Thatcher? - *Walt Patterson*